

point defects, extended defects and thermal vibrations alike, it is impressive how models of very complicated physical situations lead to reasonably simple predictions for the scattering properties. Very few workers in this area are sufficiently familiar with *both* the static and dynamical aspects of disorder scattering: the attempt at a unified presentation of these topics is especially to be commended. Inevitably some of the comparisons with experiment already require updating, but the real value of the book is its strong insight into the structure of the theory of scattering in complicated solid state situations.

J. A. D. MATTHEW

*Department of Physics*  
*University of York*  
*Heslington*  
*York*  
*England*

**Gallium arsenide. Symposium proceedings**, Dallas, Texas, October 1968. Conference Series No. 7. Pp. vii + 244. London: The Institute of Physics and the Physical Society, 1969. Price £6 5s. (U.S. \$15).

Gallium arsenide has become one of the most interesting of the III-V semiconducting compounds due to its applications in the field of semiconductor lasers and more particularly, solid state microwave devices including the Gunn effect oscillator.

This volume, the seventh in the series of complete conference reports, contains 35 papers presented at the second

international symposium on gallium arsenide held in Dallas, Texas, U.S.A. from 16th to 18th October 1968.

The papers group conveniently into six chapters covering (i) liquid epitaxial growth (ii) vapour phase epitaxial growth and growth of bulk material (iii) stimulated emission (iv) spontaneous emission (v) microwave devices and (vi) other devices. This conference drew together renowned experts in these fields and the papers are of the expected high quality.

There is some doubt in the reviewer's mind however, as to the desirability of collecting conference papers together in book form particularly, as in this instance, when the sections are not headed by a review paper on the subject matter of the section. The value of this book would be greatly enhanced by a paper, even though not a part of the conference, reviewing the present situation on GaAs lasers and preceding Chapter 3. A similar paper heading the chapter on applications of GaAs in the microwave field would also be of value.

The contents of a book of this nature are governed by the conference committee and they are to be commended for selecting papers which cover effectively the whole field of GaAs, its properties and applications. However this book is of value only to research workers in this specialized field. It is well produced by the Institute of Physics and the Physical Society and for its size is not unduly expensive.

D. W. GOODWIN

*Department of Physics*  
*University of York*  
*Heslington*  
*York*  
*England*

### Books Received

*The following books have been received by the Editor. Brief and generally uncritical notices are given of works of marginal crystallographic interest; occasionally a book of fundamental interest is included under this heading because of difficulty in finding a suitable reviewer without great delay.*

**High magnetic fields and their applications**, Nottingham 1969. Conference booklet 1, Pp. 168. London: The Institute of Physics and the Physical Society, 1969. Price 30s (U.S. \$3.60).

This booklet reproduces papers from the fourth *International Conference on High Magnetic Fields* held at the University of Nottingham, September 17-19, 1969. It contains little of direct crystallographic application but will be of interest to some solid-state physicists.

**Advances in X-ray analysis. Vol. 11.** Proceedings of the Sixteenth Annual Conference on Applications of X-ray Analysis. August 9-11, 1967, Denver, U. S. A. Edited by JOHN B. NEWKIRK, GAVIN R. MALLETT and HEINZ G. PFEIFFER. Pp. xi + 499. New York: Plenum Press, 1968. Price \$22.50.

The latest in a continuing series of volumes based on the Annual Conferences sponsored by the Denver Research

Institute of the University of Denver has as its theme X-ray emission spectrography. Quantitative methods in X-ray spectrometric analysis are dealt with in a large number of papers, attesting to the growth and currency of the application and usefulness of X-ray emission.

**Advances in X-ray analysis. Vol. 12.** Proceedings of the Seventeenth Annual Conference on Applications of X-ray Analysis. August 21-23, 1968, Estes Park, Colorado, U. S. A. Edited by C. S. BARRETT, GAVIN R. MALLETT and JOHN B. NEWKIRK. Pp. x + 648. New York: Plenum Press, 1969. Price \$22.50.

This volume emphasizes developments in X-ray metallography. Papers by eminent authorities cover a wide range of topics and report on the most recent advances in the field. Areas covered include crystallography and diffraction, methods and their applications, strain analysis, crystalline fine structure, fluorescence and texture analysis, and X-ray spectrochemical analysis.